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DERWENT-ACC-NO: 1999-540849
DERWENT-WEEK: 199945
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TITLE: New peptides corresponding to Streptococcus pneumoniae PsaA, used for
treating or preventing Streptococcus pneumoniae infection in a subject
INVENTOR-NAME: ADES, E W; CARLONE, G M ; SAMPSON, J S ; THARPE, J A ; WESTERINK, M A J ; ZEILER, J L
PRIORITY-DATA: 1998US-076565P (March 2, 1998)
PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9945121 A1	September 10, 1999	E	058	C12N 015/31
AU 9927950 A	September 20, 1999	N/A	000	C12N 015/31
BR 9908476 A	December 5, 2000	N/A	000	C12N 015/31
EP 1060249 A1	December 20, 2000	E	000	C12N 015/31

INT-CL (IPC): A61K038/10; A61K039/09 ; C07K007/08 ; C07K014/315 ; C12N015/31 ; G01N033/566
ABSTRACTED-PUB-NO: WO 9945121A
BASIC-ABSTRACT: NOVELTY - Novel peptides that immunospecifically bind to a
monoclonal antibody (MAb) obtained in response to immunizing an animal with
Streptococcus pneumoniae (SP) pneumococcal surface adhesion A protein (PsaA)
are claimed.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a peptide whose sequence results from a method comprising:

(a) providing a library comprised of random oligonucleotides (ONs), where the
ONs are about 30-45 nucleotides in length;

(b) splicing the ONs of the library into the gene for the gene III coat protein
of a filamentous bacteriophage in frame with the codons for the amino acid
residues of the coat protein, where the gene for the gene III coat protein is
contained within the bacteriophage genome, thereby creating bacteriophage
library, and where the ONs are positioned within the gene such that when the
coat protein is expressed and incorporated into a complete bacteriophage
particle, the peptide is available as an epitope to which an antibody can bind;

(c) expanding the bacteriophage library harboring the ON library by culturing
the bacteriophage library in a host which the bacteriophage infects;

(d) screening the expanded bacteriophage library for a specific bacteriophage
particle that immunospecifically reacts with a MAb obtained in response to
immunizing an animal with SP PsaA; and

(e) sequencing the gene for the coat protein of the specific bacteriophage
particle obtained in (d) thereby yielding the nucleotide sequence of that
member of the ON library whose translation product has the sequence of the
peptide potentially capable of eliciting protective immunity against SP;

(2) a therapeutic composition comprising one or more peptides that
immunospecifically bind to a MAb obtained in response to immunizing an animal
with SP PsaA, and an immunostimulatory carrier, where the therapeutic
composition confers protective immunity against SP infection when administered
to a subject;

(3) a peptide comprising a sequence which is at least 80% identical to a
peptide whose sequence is chosen from sequences (V) - (VIII) or immunogenic
fragments:

Sequence (V): Thr Val Ser Arg Val Pro Trp Thr Ala Trp Ala Phe His Gly Tyr;

Sequence (VI): Arg Ser Tyr Gln His Asp Leu Arg Ala Tyr Gly Phe Trp Arg Leu;

Sequence (VII): Leu Val Arg Arg Phe Val His Arg Arg Pro His Val Glu Ser Gln;

Sequence (VIII): Leu Val Arg Arg Phe Val His His Arg Pro His Val Glu Ser Gln.

USE - The peptides can be used for treating or preventing infection by SP in a
subject.

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DERWENT-ACC-NO: 2000-412361
DERWENT-WEEK: 200035
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TITLE: Identifying a bacteriophage coding region for treating bacterial
infections comprises identifying a nucleic acid encoding a product that inhibits bacteria when a bacteriophage infects a bacterium
INVENTOR-NAME: DUBOW, M; GROS, P ; PELLETIER, J
PRIORITY-DATA: 1999US-0454252 (December 2, 1999) , 1998US-110992P (December 3,
1998) , 1999US-0326144 (June 3, 1999) , 1999US-0407804 (September 28, 1999)
, 1999US-157218P (September 30, 1999) , 1999US-168777P (December 1, 1999)
PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200032825	June 8, 2000	E	456	C12Q 001/70
A2	June 19, 2000	N/A	000	C12Q 001/70
AU 200015815 A	September 26, 2001	E	000	C12Q 001/70
EP 1135535 A2				

INT-CL (IPC): C07K014/01; C12N001/21 ; C12N015/10 ; C12N015/34 ; C12Q001/18 ; C12Q001/68 ; C12Q001/70
ABSTRACTED-PUB-NO: WO 200032825A
BASIC-ABSTRACT: NOVELTY - Identifying a bacteriophage coding region encoding a
product active on an essential bacterial target comprises identifying a nucleic
acid sequence encoding a gene product that provides a bacteria-inhibiting
function when an uncharacterized bacteriophage infects a pathogenic bacterium.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) Identifying a target for antibacterial agents comprising determining the
bacterial target of an uncharacterized bacteriophage inhibitor protein;

(2) A nucleic acid of 15 nucleotides corresponding to at least a portion of a
bacteriophage, that is Staphylococcus aureus 77, 3A, 96, and 44AHJD, Enterococcus 182, or Streptococcus pheumoniae Dp-1, sequence;

(3) A polypeptide encoded by a bacteriophage that is Staphylococcus aureus77,
3A, 96, and 44AHJD, Enterococcus182, or Streptococcus pheumoniae Dp-1, comprising a portion of a protein providing a bacteria-inhibiting function;

(4) A recombinant vector comprising a bacteriophage open reading frame (ORF)
from a bacteriophage having an uncharacterized pathogenic bacterial host given
in the specification;

(5) Identifying an antibacterial agent, comprising identifying an active
portion of a product of a bacteria-inhibiting ORF of a bacteriophage;

(6) Identifying a compound active on a target of a bacteriophage inhibitor
protein comprising contacting an uncharacterized bacterial target protein with
a test compound and determining if the compound binds to or reduces the level
of activity of the protein;

(7) Screening for potential antibacterial agents comprising determining if
compounds are active on a target of a bacteriophage inhibitor protein;

(8) Inhibiting a bacterium, comprising contacting the bacterium with a compound
active on an uncharacterized target of a bacteriophage inhibitor protein;

(9) Treating or inhibiting a bacterial infection in an animal comprising
administering a compound active on an uncharacterized target or target site of
a bacteriophage inhibitor protein in a bacterium;

(10) An antibacterial agent active on an uncharacterized target or a phage-specific site on the target of a bacteriophage inhibitor protein;

(11) Making an antibacterial agent comprising:

(a) identifying a target of a bacteriophage inhibitor polypeptide;

(b) screening for a compound active on the target; and

(c) synthesizing the compound that can be administered to an organism infected
by a bacterium producing the target;

(12) A computer readable device having recorded a nucleotide sequence of a
portion of at least one bacteriophage genome of Staphylococcus aureus 77, 3A or
96, a nucleotide sequence 95 % identical to them, a ribonucleic acid equivalent, a degenerate equivalent, a homologous sequence, or a amino acid
sequence encoded by the nucleotide sequence, and a nucleotide or amino acid
sequence analysis program;

(13) A computer-based system for identifying biologically important portions of
a bacteriophage genome comprising:

(a) a data storage medium with a nucleotide sequence corresponding to a portion
of an uncharacterized bacteriophage genome;

(b) instructions for searching and analyzing the sequence; and

(c) an output device; and

(14) Identifying or characterizing a bacteriophage ORF, comprising analyzing a
portion of a sequence with (13) and outputting results to the output device.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Bacteria-inhibitor.

USE - The compound active on a target of a bacteriophage inhibitor protein in a
bacteria is used to treat or prevent a bacterial infection in an animal.